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DEC 2 3 2002 Date: December 16, 2002

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TECH CENTER 1600/2900

Applicant(s)

Wells et al.

Appl. No.

09/981,547

Filed

October 17, 2001

For

METHODS FOR RAPIDLY

IDENTIFYING SMALL ORGANIC MOLECULE LIGANDS FOR BINDING TO

BIOLOGICAL TARGET

MOLECULES

Examiner

Jon D. Epperson

Group Art Unit:

1639

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: United States Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202, on

December 16, 2002

(Date)

Ginger R. Dreger, Reg. No. 33,055

TRANSMITTAL LETTER

United States Patent and Trademark Office P.O. Box 2327 Arlington, VA 22202

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) A Response to Restriction Requirement in three (3) pages.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Ginger R. Dreger
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For	:	METHODS FOR RAPIDLY	Arlington, VA 22202, off
		IDENTIFYING SMALL	December 16, 2002
		ORGANIC MOLECULE	(Date)
		LIGANDS FOR BINDING TO	1 () - \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		BIOLOGICAL TARGET	Oinger R. Dreger, Reg. No. 33,055
		MOLECULES)
)
Examiner	:	Jon D. Epperson	,)
·			-

RESPONSE TO RESTRICTION REQUIREMENT

United States Patent and Trademark Office P.O. Box 2327 Arlington, VA 22202

Dear Sir:

This is in response to the Office Action mailed on November 20, 2002, setting a one-month term.

Claims 40-80 are pending in this application. Applicants were request to elect, for examination purposes, the invention of one of Groups I-III listed on page 2 of the Office Action. In case of electing the invention of Group I (claims 40-56), Applicants were further requested to elect a single species from each of Subgroups 1-3, defined on pages 4-5 of the Office Action. If electing the invention of Group II (claims 57 and 77-80), Applicants were further requested to elect a single species of Subgroup 1 (species of ligand). If electing the invention of Group III (claims 67-76), Applicants were further requested to elect a single species from each of Subgroups 1 and 2, specified on pages 5-6 of the Office Action.

Since the restriction requirement did not include claims 58-66, Applicants' representative contacted the Examiner, who confirmed that claims 58-66 were supposed to be grouped in a

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separate Group IV. The Examiner further indicated that if electing the invention of Group IV, Applicants must elect a single species from each of Subgroups I-3, which are defined on the analogy of Subgroups 1-3 within the invention of Group I.

In order to be responsive, the invention of Group IV (claims 58-66) is hereby elected, with traverse. In addition, Applicants make the following species election:

Subgroup 1: Species of target protein – tissue necrosis factor receptor (TNF receptor). Support for this election is at least at page 9, lines 8-12. Claims 58-61, 65, and 67-68 read on this species.

Subgroup 2: Species of ligand – a ligand that forms a disulfide bond with the target protein. Claims 58-66 read on this species.

Subgroup 3: Chemically reactive group – a thiol group. Claims 58-66 read on this species.

The examiner is respectfully requested to reconsider the restriction requirement with regard to the inventions of Group I and Group IV. Groups I and IV both concern methods for identifying ligands that bind to a target protein. The claims within these two claims have similar scopes, and raise similar issues. Accordingly, examining these two groups in the same application does not place does not place undue burden on the Examiner, rather would greatly facilitate the prosecution of the application.

Applicants further note that it was impossible to elect a species of ligand along the lines suggested (for Group I) in the Office Action. Cytokines, such as interleukins, are not listed as species of the ligand to be identified. In claim 45, the term "ligand" refers to the phrase "ligand for a receptor" as it is used in claim 41, i.e. it further specifies a subgroup of the <u>target proteins</u>. Furthermore, since the ligand to be identified is a member of a small molecule library, which is identified only by its molecular weight and by the nature of the reactive group it carries, it is impossible to identify a single ligand molecule. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the requirement to elect a single species of the ligand for examination purposes.

The present application is believed to be in *prima facie* condition for allowance, and an early action to that effect is respectfully solicited.

Although no fees are believed to be due at this time, please charge any fees, including any fees for extension of time, or credit overpayment to Deposit Account No. 11-1410.

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Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: <u>December</u> (6,20)

By: Ginger R. Dreger

Registration No. 33,055

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